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Vocational guidance for undergraduate psychology students. Psychometric properties of the questionnaire of vocational interests in psychology

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Abstract

This study had the objective of verifying the psychometric properties of a vocational counseling questionnaire in the psychology profession. The questionnaires were completed by 109 participants. The results showed a good internal consistency of the 9 dimensions of the test, good content validity and good convergent validity. In conclusion, the vocational guidance questionnaire in the profession of psychology is a valid and useful questionnaire in career counselling settings.

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1. Theoretical framework

Vocational counseling and career guidance are important dimensions for the educational system in any developed society. Developed countries are investing in these types of services because of the usefulness they have demonstrated over time. However, there are societies such as Romanian where these services are not well known to potential beneficiaries, accordingly, the role of career counseling and guidance is negligible in Romanian education. In Romania there is a substantial imbalance between the number of specialists in a particular field and labor market opportunities, in some areas there being much more specialists than work, while in other professional fields the number of specialists required by the labor market has a shortage. There is also a significant rate of professional

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reconversion and a very high rate of unemployment. This is due largely to a lack of career counseling and appropriate talent management. Aniței & Chraif (2011) conducted a longitudinal study regarding the psychologist profession and the vocational guidance of Romanian high school students, Chraif & Aniței (2011) were interested to study the Romanian Students' Attachment and Involvement towards Attending to National and International Conferences, Chraif & Anitei (2012) were interested to study the attachment, motivation, positive and negative emotions and support groups as predictors of Romanian students' career orientation in psychology, Anitei & Chraif (2013) conducted a study of validation of coping styles and emotions on romanian psychology students and Chraif (2013) presented in her book designs useful in vocational guidance prediction and possible experimental designs to be applied.

The need for career counselling is greater among students from the faculties of psychology because this is a newly formed professional area, or rather, reformed after 1990. Given that over a period of several decades the faculty of psychology was abolished, it is relatively normal that the role of psychological services in society is less known to the mass of the population. In view of this, the young graduate of psychology and psychologists find it difficult to find their place in a labor market in which the psychological services are not seen as essential for the proper functioning of society.

Burwell and Chen (2006) states that successful career counseling is that where there is a balanced link between knowledge and the personal characteristics of the individual and the labor market demands. Over time five theoretical models of career counselling have been established. Next, these models will briefly be presented.

The first model is the work adjustment model (Dawis and Lofquist, 1984). This theory is based on individual differences in terms of vocational behavior. This model is also called the fit between person and environment model, focusing on career selection and development as a continuous process of matching and accommodating the person (P) looking for organizations and work environments (M) that meets the persons expectations about "needs "and organizations seek individuals who possess the features they need (Leung, 2008).

The second established model is the career counselling model developed by Holland (1997). Holland's vocational interest's model is probably the best known model, being the basis for many of the counselling and career guidance systems worldwide. Holland believed that a person's vocational interests are in fact the expression of their personality, vocational interests being conceptualized into 6 categories. These are realist, investigative, artistic, social, enterprising and conventional interests. After the evaluation of the 6 categories of vocational interests, Holland recommended a scheme to document the three most representative interests for the person being evaluated (eg. social-entrepreneurial-conventional).

The fourth model is the model proposed by Gottfredson (1996) namely the compromise theory. This model is more recently established in the international research and in the practice field of career guidance. Gottfredson believes that choosing a career is a process that requires a high level of cognitive competence. For him genetic factors play an important role in a person's cognitive development. Thus, genetic factors determine the formation of personal characteristics such as interests, skills and values, but they are expressed and finalized based on the characteristics of the environment in which the person operates.

The last model important in career counselling is the social-cognitive model (Lent, Brown, & Hackett, 2002) which is based on Bandura's theory of self-efficacy, which refers to a bidirectional and reciprocal relationship between person and environment. This model is composed of three segments related to career development that aim to explain (a) the development of vocational interests, (b) how a decision is made and career choice and (c) stability and career performance.

2. Objective and Hypotheses

2.1. Objectives

Most vocational guidance instruments are designed for counseling high school students, there being no psychometric assessment tools for different professional interests. This study represents the starting point in building a tool for the professional interests of the profession of psychologist. The purpose of this tool is to assess the

preferences of students from the Faculty of Psychology for the existing specializations in Romanian psychology. Therefore, this paper evaluates the psychometric properties of the questionnaire (internal consistency, mean and standard deviations, content validity, face validity and convergent validity).

The dimensions of the questionnaire are made of the most important existing specializations in Romanian psychology (clinical psychology, psychotherapy, work psychology, transport psychology, service psychology, educational psychology, military psychology, judicial psychology and research). Questionnaire items are formulated as statements that show the most important work of psychologists in each specialization.

3. Method

3.1. Participants

In this research took part 109 students from the Faculty of Psychology and Educational Sciences from Titu Maiorescu University aged between 19 and 52 years ($M = 24.66$, $SD = 7.32$), of which 32 were boys and 77 girls.

3.2. Instruments

The questionnaire of vocational interests in psychology. The questionnaire consists of 90 items which are divided into 10 dimensions (10 items for each dimension) (clinical psychology, psychotherapy, work psychology, transport psychology, service psychology, educational psychology, military psychology, judicial psychology and research). Each item has 5 possible answers (1 = does not characterize me at all, 5 = always characterizes me). Examples of items are: "I find it interesting to evaluate drivers in terms of skills and personality", "I have the patience to listen to people's stories", "I have patience and I like working with children".

To assess convergent validity of the questionnaire, questionnaires to assess personality and emotional intelligence were applied. Emotional intelligence was assessed using the short form of TEIQue (Petrides & Furnham, 2003). The questionnaire contains 30 items, each item having seven possible answers (1 = Completely disagree, 7 = Completely Agree). Total score is calculated by summing the 30 items.

The five personality factors were assessed with the IPIP questionnaire which consists of 50 items made by Goldberg (Goldberg, 1992). Each factor contains 10 items, each with 5 response options (1 = very inaccurate, 5 = very accurate).

3.3. Procedure

Prior to the application of the research, participant's consent to participate in research was obtained. Questionnaires were completed in pencil and paper form. Time for completing the questionnaires was between 20 to 25 minutes.

4. Results

4.1. The development of the instrument and content validity

The most important activities for each existing specialization in psychology in Romania were determined after discussions with psychologists with expertise in each area. The most important activities have been formulated as applications that are questionnaire items (ex. As a psychologist, I rely solely on scientific evidence when I work, I would like to counsel soldiers involved in combat theatres). Content validity indicators were calculated for each item and for the entire sample. To calculate the content validity the proposed technique used was that proposed by Lynn (1986) and Polit (Polit & Beck, 2006). Thus, according to this method a group of 10 psychologists was selected, each giving a score for each item according to the relevance to the theoretical construct measured.

The expert group had the following response options: 1 = irrelevant, 2 = slightly important, 3 = important, 4 = extremely important. The formula for calculating the coefficient of content validity is the following: the number of

experts who score 3 or 4 for the item / total number of experts. Content validity coefficient for the entire instrument was CVI = 0.9.

4.2. Scale statistics and internal consistency.

Table 1. Means, standard deviations, skewness and kurtosis for all instrument dimensions.

Dimension	M	Sd	Skewness	Kurtosis	Alpha
Clinical psychology	36.14	7.41	-.32	-.10	.81
Psychotherapy	40.89	7.40	-.81	-.15	.88
Work Psychology	33.13	10.38	-.29	-.82	.92
Transportation Psychology	29.92	9.18	.19	-.74	.89
Services Psychology	32.14	7.75	-.25	-.13	.81
Educational Psychology	35.47	7.56	-.01	.73	.83
Military Psychology	31.55	12.02	-.06	-1.02	.83
Judiciary psychology	35.91	9.37	-.77	-.21	.88
Research psychology	34.05	6.51	-.23	-.25	.75

In Table 1 we can observe the means, standard deviations, skewness, kurtosis and Cronbach Alpha coefficient for all test dimensions. Given the symmetry of the distribution indicators, we see that all dimensions have a normal distribution. All dimensions have a very good internal consistency, yielding values > .75 for all sizes.

4.3. Inter-scale correlations and convergent validity

Table 2. Correlations between all study variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Clinical P.	-														
Psychotherapy	.45**	-													
Work psy.	.04	.22*	-												
Transport psy.	.07	.26*	.54**	-											
Services Psy	-.07	.10	.47**	.55**	-										
Educ. Psy	.32*	.61**	.36**	.27*	.40**	-									
Military psy	.17	-.14	.23*	.28*	.27*	.00	-								
Judiciary psy	.17	-.14	.23*	.28*	.27*	.00	.90**	-							
Research psy	.39*	.33*	.27*	.28*	.28*	.30**	.20*	.20*	-						
EI	.30*	.45**	.17	.10	.10	.47**	.09	.09	.34**	-					
N	-.06	-.19*	.04	.03	.03	.05	-.01	-.01	-.04	-.18	-				
E	.09	.16	.14	.09	.09	.12	.03	.02	.07	.32**	.12	-			
O	.17	-.01	-.04	.01	.01	.03	.01	.01	.13	.12	.08	.70**	-		
A	.08	.20*	.12	.09	.09	.26**	-.04	-.03	.16	.36**	.07	.63**	.64**	-	
C	.00	.05	.10	.11	.12	.01	-.02	-.02	.01	.01	.03	.67**	.65**	.68**	-

*p<.05; **p<.01

Regarding inter-scale correlations, we see that the interest in clinical psychology is positively correlated with interest in psychotherapy, psychology, education and research. The interest in psychotherapy is positive correlated with interest in work psychology, psychology of transport, education and psychology research. Interest in work psychology is strongly correlated with interest in transport psychology, services psychology, military psychology, legal psychology and research. Interest in transport psychology is positively correlated with interest in services psychology, educational psychology, military and judicial psychology and research. Interest in services psychology is positively correlated with interest in educational psychology, military and judicial psychology and research. Interest in education psychology is positively correlated with interest for research. Interest in military psychology is

positively related to education with the interest in legal psychology and research. Interest in legal psychology positively relates to interest in research.

Regarding convergent validity of the test, it is observed that the instrument has good convergent validity. Note that there is a positive relationship between interest in clinical psychology and emotional intelligence. There is a positive relationship between interest in psychotherapy and emotional intelligence and agreeableness. Also, there is a negative relationship between interest in psychotherapy and neuroticism. Also, there is a positive relationship between interest in educational psychology, emotional intelligence and agreeableness.

4.4. Gender differences regarding interest for the nine domains

Table 3. Gender differences regarding vocational interests in psychology students.

Dimension	Male		Female		t	Sig.
	M	SD	M	SD		
Clinical Psychology	34.00	7.60	36.87	7.26	-1.69	.09
Psychotherapy	42.40	6.35	42.20	7.66	1.32	.19
Work Psychology	31.89	11.05	33.62	10.22	-.74	.45
Transportation Psychology	27.96	8.97	30.71	9.24	-1.33	.18
Services Psychology	33.41	7.04	31.60	8.02	1.06	.28
Educational Psychology	35.07	7.92	35.46	7.40	-.23	.81
Military Psychology	29.92	11.98	32.07	12.14	-.79	.42
Judiciary Psychology	34.00	8.98	36.69	9.54	-1.32	.18
Research psychology	32.76	6.89	34.50	6.36	-1.23	.22

In Table 3 we see that there are no gender differences in terms of vocational interests.

5. Conclusions

The objective of this study was to develop a questionnaire for assessing the professional interests of students at the Faculty of Psychology and check its psychometric qualities. Study results showed that all dimensions of the instrument have a very good internal consistency and good convergent validity. Some limitations of this study are the small number of participants and lack of construct validity testing. This study may represent a starting point for further research investigating various important issues in career counseling. In conclusion, the vocational guidance instrument in the profession of psychologist is a valid, useful tool in the processes of counseling and career guidance.

References

- Aniței, M. & Chraif, M. (2011). A longitudinal study regarding the psychologist profession and the vocational guidance of Romanian high school students, Book Editor(s): Bekirogullari, Z in Proceedings of The International Conference on Education and Educational Psychology, 2011 *Procedia - Social and Behavioral Sciences*, 29, 1677-1682
- Anitei, M. & Chraif, M. (2013). Validation of Coping Styles and Emotions Undergraduate Inventory on Romanian Psychology Students, Book Editor(s): Hüseyin Uzunboylu and Fezile Ozdamli In volume on International Conference 2nd World Conference on Educational Technology Research, *Procedia - Social and Behavioral Sciences*, 83, 1116–1120
- Chraif, M. & Aniței, M. (2011). Romanian Students' Attachment and Involvement towards Attending to National and International Conferences Book Editor(s): Bekirogullari, Zin Proceedings of The International Conference on Education and Educational Psychology, 2011, *Procedia - Social and Behavioral Sciences*, 29, 1683-1688
- Chraif, M., Anitei, M. (2012). Attachment, motivation, positive and negative emotions and support groups as predictors of Romanian students' career orientation in psychology, Book Editor(s): Baskan, GA; Ozdamli, F; Kanbul, S; et al. In volume of international conference „4th World Conference on Educational Sciences” (WCES) Book Series: *Procedia Social and Behavioral Sciences*, 46, 2409-2413 DOI: 10.1016/j.sbspro.2012.05.494
- Chraif, M. (2013). Psihologie experimentală, [Experimental Psychology]. Bucuresti: Ed Univeritara.
- Burwell, R., & Chen, C.P. (2006). Applying the principles and techniques of solution-focused to career counseling. *Counseling Psychology Quarterly*, 19(2), 189-203.

- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment*. Minneapolis, MN: University of Minnesota Press.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, 4, 24–42.
- Gottfredson, L. S. (1996). Gottfredson's theory of circumscription and compromise. In D. Brown & L. Brooks (Eds.), *Career choice and development: Applying contemporary approaches to practice* (3rd ed., pp. 179–232). San Francisco, CA: Jossey-Bass.
- Holland, J. H. (1997). *Making vocational choices: A theory of vocational personalities and work*.
- Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. In D. Brown & Associates (Eds.), *Career choice and development* (4th ed., pp. 255–311). San Francisco, CA: Jossey-Bass.
- Lynn, M. (1986). Determination and quantification of content validity. *Nursing Research*, 35(6), 382–385.
- Petrides, K. V. & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, 15, 425–448.
- Polit, D. F., & Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? critique and recommendations. *Research in Nursing & Health*, 29(5), 489–497.